

CLAIMS

1. A panel (1, 1') for sectional doors, characterised by presenting a body having:
- a) a first longitudinal end (6) having a more outer substantially circular profile part (5) and a more inner narrow connecting part (10, 11, 17, 18, 19), and
 - b) a second longitudinal end (7) opposite the first (6) and presenting a recess (8) of substantially circular narrow-mouthed shape (8A) arranged to matchingly receive said more outer part (5) of another panel having identical ends such as to couple and hinge the panels (1) together by simply inserting them manually and thrusting them in the direction of the panel height, or by inserting the said ends of the individual panels into each other by simply sliding them mutually in the direction of the panel length.
2. A panel as claimed in claim 1, characterised by comprising a first profiled metal plate (2) and a second profiled metal plate (4), connected together to form an interspace (3), filled with an insulant, such as foamed polyurethane.
3. A panel (1) for sectional doors as claimed in one or more of the preceding claims, characterised in that its first longitudinal end (16) is obtained by the union of two circumferential arcs (12) and (16) of the profiled plates joined together by means of a pair of tabs (13, 14) and radius-joined to the body of the panel by the shaped connection portions (10-11 and 17-18-19).
4. A panel (1) for sectional doors as claimed in the preceding claims, characterised in that that end (7) provided with the recess (8) is formed by the union of two circumferential arcs (24) and (28) joined together by means of a pair of tabs (26, 27), and radius-joined to the lower end of the panel (7) by a plurality of portions of shaped fixing profiles (20-21-22-23 and 29-30-31-32).
5. A panel (1) for sectional doors as claimed in the preceding claims, characterised in that said shaped fixing profile portions (20-21-22-23 and 29-30-31-32) present at said second end (7) are shaped such that the initial portions (22-23 and 29-30) forming the access mouth are positioned below the centre (25) of said recess (8) and have a minimum distance apart which is less than the diameter of the circumference of the more outer part (5), to embrace said part (5) when inserted and prevent its easy disengagement during normal operation of the sectional door.
6. A panel (1) for sectional doors as claimed in the preceding claims,

characterised in that said more outer part (5) is slightly inclined towards the interior of the space closed by the sectional door, to prevent, when in said position, squashing of the fingers by the outside of the door, between a shaped fixing profile portion (20-21) of the second end (7) and the radius-joining profile (10-11) of the first upper end (6), during their mutual rotation.

7. A panel (1) for sectional doors as claimed in the preceding claims, characterised in that said more outer part 5 is inclined towards the interior of the space closed by the sectional door, in said position preventing squashing of the fingers by the inside of the door, between the shaped fixing profile portion (31-32) of the lower end (7) and the internal radius-joining profile (17-18-19) of the upper end (6) during their mutual rotation, said squashing of the fingers being prevented until the angle between the panels is $\pi/6$ radians, said contained angle assuming at a maximum the value of $\pi/3$ radians, at which contained angle said profiles (31-32) and (17-18-19) already abut against each other, so preventing their further mutual rotation and ensuring that the panels (1) cannot possibly fall.

8. A panel (1) for sectional doors as claimed in claim 1, characterised by comprising extruded profile bars, preferably of aluminium, one (37) of these profile bars forming the first end (6) of the panel and a second profile bar (38) forming the second end of the panel, there also being provided: a possible reinforcement bar (39) and a plurality of interchangeable known elements, such as aluminium glass holders (41, 42) for single and double glass (40), external and internal rubber sealing strips (43, 42), and spacer bars preferably of aluminium, said first profile bar (37) having its external part (5) of substantially circular profile, and said lower profile bar (38) presenting a circular recess, to enable it to house said first profile bar (37), which said ends (37, 38) can be coupled to the matching ends of other identical panels (1) by simple manual push-fitting in the direction of the height axis of the panel and without the aid of hinges or other connection means, or by inserting said matching ends of the individual panels one into the other by simply sliding them mutually in the direction of the panel length.

9. A panel (1) for sectional doors as claimed in the preceding claims, characterised in that a plurality of half-rings (9) of self-lubricating material can be inserted into the recess (8, 38) by simple manual push-fitting in the direction of the panel height, spaced apart by a distance approximately equal

to the height of the panel (1).

10. A door formed from panels in accordance with one or more of the preceding claims, characterised by being formed from panels of homogeneous or non-homogeneous structure.